

In the Claims

34. (Currently amended) A computer-implemented method for solving a current financial portfolio optimization problem comprising the steps of:

storing, on a computer, a plurality of data groups each associated with one of a plurality of anticipated financial portfolio optimization problems, each of the data groups including optimal solutions to a corresponding anticipated financial portfolio optimization problem, each of the data groups further including input values and intermediate calculation values associated with the corresponding anticipated financial portfolio optimization problem;

[[pre-]]solving, using said computer, the plurality of anticipated financial portfolio optimization problems;

compiling, using said computer, ~~the plurality of data groups based on the of the pre-solving step~~ a set of results from said solved anticipated financial portfolio optimization problems;

preparing and storing, on said computer, a plurality of look-up tables for identifying each of ~~the plurality of data groups~~ said results, the plurality of look-up tables containing equation names, RHS (Right Hand Side) values, and objective values pertaining to the plurality of anticipated financial portfolio optimization problems;

solving, using said computer, the current financial portfolio optimization problem using the stored results from said solved anticipated financial portfolio optimization problems ~~data groups~~, the solving step including the steps of:

selecting, using user-defined functions, at least one of the stored results ~~plurality~~
~~of data groups~~ using the look-up tables; and

determining whether or not the selected result ~~data group~~ contains optimal
solutions to the current financial portfolio optimization problem;

wherein, if the determining step determines that the selected result ~~data group~~ contains
optimal solutions to the current financial portfolio optimization problem, then the optimal
solutions included in the selected result ~~data group~~ are output as optimal solutions to the current
financial portfolio optimization problem; and

wherein, if the determining step determines that the selected result ~~data group~~ does not
contain optimal solutions to the current financial portfolio optimization problem, then the
selected result ~~data group~~ is modified using a search method, and the current financial portfolio
optimization problem is iteratively solved using the modified data group to obtain optimal
solutions to the current problem.

35. (Currently amended) A system for solving a current financial portfolio
optimization problem comprising:

a storage unit, in a computer, storing a plurality of data groups each associated with one
of a plurality of anticipated financial portfolio optimization problems, each of the data groups
including optimal solutions to a corresponding anticipated financial portfolio optimization
problem, each of the data groups further including input values and intermediate calculation

values associated with the corresponding anticipated financial portfolio optimization problem;
and

an optimization unit in said computer, said optimization comprising:

means for ~~[[pre-]]~~solving the plurality of anticipated financial portfolio optimization problems;

means for compiling a set of results from said solved anticipated financial portfolio optimization problems ~~the plurality of data groups based on the results of the pre-solving~~;

means for preparing and storing a plurality of look-up tables for identifying each of said results ~~the plurality of data groups~~, the plurality of look-up tables containing equation names, RHS (Right Hand Side) values, and objective values pertaining to the plurality of anticipated financial portfolio optimization problems;

means for solving the current financial portfolio optimization problem using the stored results from said solved anticipated financial portfolio optimization problems ~~data groups~~, the solving means including:

means for selecting, using user-defined functions, at least one of the results ~~stored plurality of data groups~~ using the look-up tables; and

means for determining whether or not the selected result ~~data group~~ contains optimal solutions to the current financial portfolio optimization problem;

wherein, if the determining means determines that the selected result ~~data group~~ contains optimal solutions to the current financial portfolio optimization problem, then the optimal

solutions included in the selected result data-group are output as optimal solutions to the current financial portfolio optimization problem; and

wherein, if the determining means determines that the selected result data-group does not contain optimal solutions to the current financial portfolio optimization problem, then the selected result data-group is modified using a search method, and the current financial portfolio optimization problem is iteratively solved using the modified data group to obtain optimal solutions to the current problem.